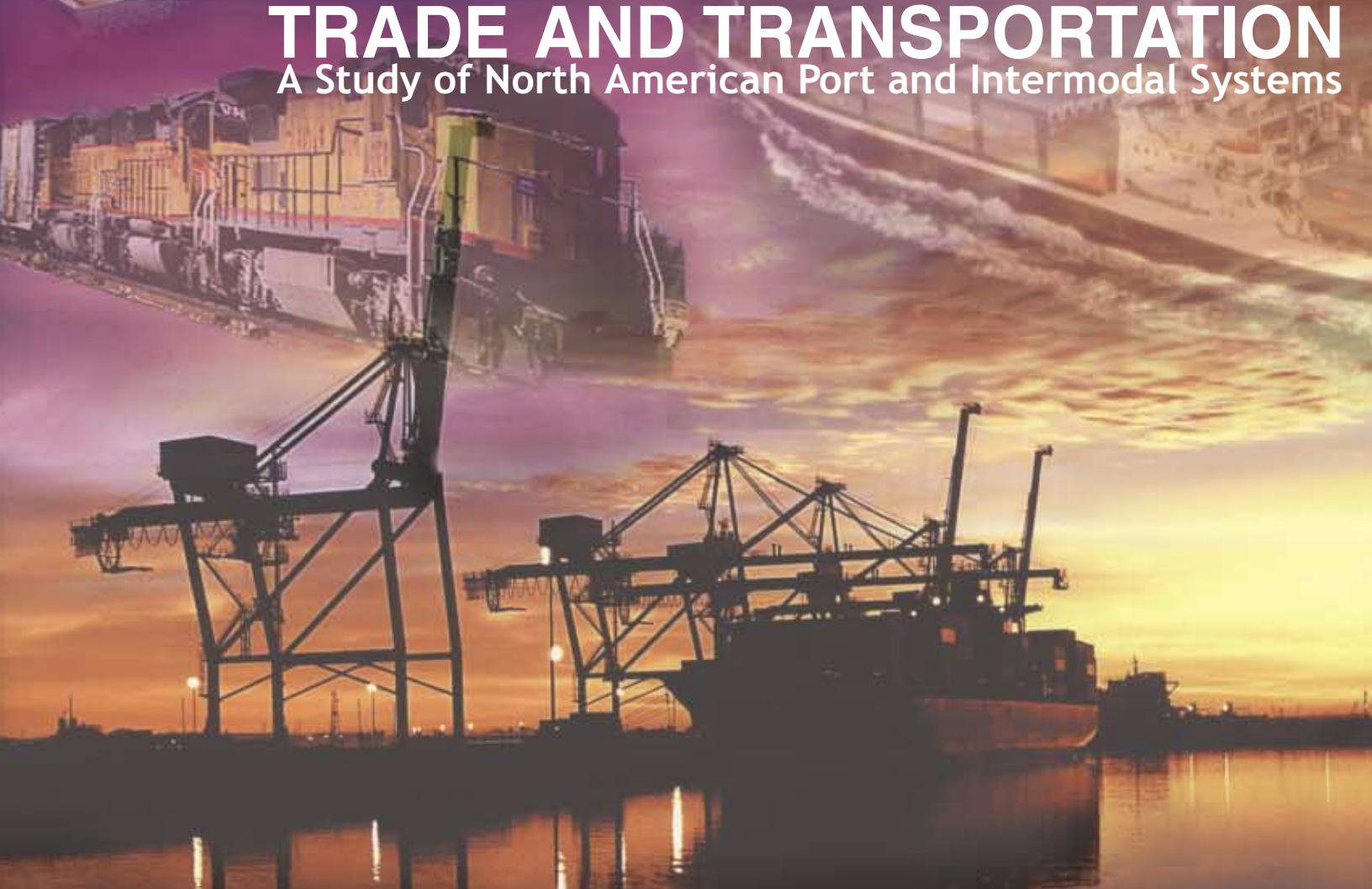




# TRADE AND TRANSPORTATION

A Study of North American Port and Intermodal Systems



By the National Chamber Foundation of the U.S. Chamber of Commerce

March 2003



TRADE & TRANSPORTATION



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# Executive Summary

## EXECUTIVE SUMMARY

The United States is the world's largest importer and exporter, accounting for 1 billion metric tons or nearly 20% of the annual world ocean-borne trade. All freight moving in, out, and within the U.S. amounts to about 15 billion tons and has a value of \$9.1 trillion. Although the vast majority of freight moves domestically, international trade amounts to \$2.0 trillion, almost half of which is containerized, manufactured

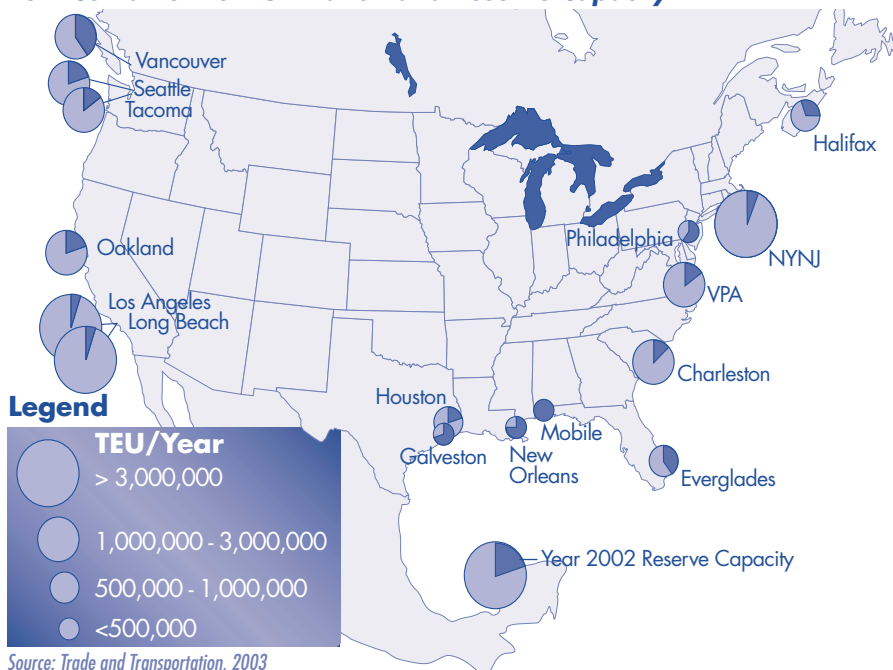
goods. This figure represents almost 27% of the entire Gross Domestic Product (GDP) that is totally dependent on international trade.


By the year 2020, even at moderate rates of economic growth, the total domestic tonnage of freight carried by all U.S. freight systems will increase by approximately 67%, while international trade will nearly double. In this same time interval, every major U.S. container port is projected to at least

*"The nation's transportation system is the lifeblood of our economy. Without additional investment in our infrastructure, our system of commerce is impaired, our mobility is restricted, our safety is threatened, our environment is endangered, and our way of life is compromised."*

Thomas J. Donohue  
President and CEO,  
U.S. Chamber of  
Commerce and President,  
National Chamber  
Foundation

## Current Container Port Utilization and Reserve Capacity





By 2020, every major U.S. container port is projected to at least double the volume of cargo it is expected to handle, with select East Coast ports tripling in volume and some West Coast ports quadrupling in volume.

double the volume of cargo it is expected to handle, with select East Coast ports tripling in volume and some West Coast ports quadrupling in volume. This immense volume of cargo must pass through the Marine Transportation System (MTS), including approximately 35 deep-water U.S. and Canadian ports that connect the U.S. economy with the rest of the world.

Only through an aggressive program of improvement will the ports keep up with this growing cargo demand. However, improvement of the North American port system presents some unique challenges. Constructing major landfills for port expansion and implementing major channel deepening projects is a decade-long, difficult, and very costly process, with the potential for significant environmental and community impacts. For example, a recently completed Port of Oakland dredging project experienced up-front costs for engineering, permitting, and environmental compliance that exceeded the actual cost of the dredging. The United States is now in a situation where its ports and intermodal terminals can no longer build their way out of capacity problems; they must do more, do it faster, and do it cheaper with fewer resources than ever before.

Not only are ports facing capacity challenges, they are also seen as the "front line" in a war against international terrorism. The irony is that ports have always had to protect themselves from intrusion, theft and sabotage, but

now they are expected to be the gatekeepers for the entire supply chain, preventing the illegal entry of terrorists and weapons of mass destruction. The ports are expected to accomplish this without interruption of service and without additional cost to the shipper.

Ports are only one element of the U.S. intermodal distribution system. The whole system, which includes rail, trucking and inland freight hubs, is vulnerable to a looming capacity crisis, as well as to sabotage and disruption. Although more and more cargo is passing through the North American container ports, very little capacity has been added to the entire intermodal freight distribution system. At key choke points in the freight system, highways, rail lines, and ports are increasingly congested because concentration of freight movement has absorbed most of the readily available freight capacity. The U.S. highway system has experienced nearly a doubling of vehicle miles traveled in the past 20 years while the total highway mileage has increased only by 1%.

Similarly, the U.S. rail network, a private sector industry that carries about 40% of intercity domestic freight, has increased the volume of freight it carries by 50% since 1980. At the same time, total available track mileage has been reduced by 35%. In 1999, U.S. rail cargo jumped to 1.72 billion tons, a record high, but still 45% below the projected 2020 volume of 2.5 billion tons. Despite major restructuring and rationalization,



the rail industry now finds itself short of capacity in certain congested metropolitan areas, most predominantly Chicago, and along key mainlines.

Of total domestic freight, about 9% is carried by the MTS on its network of inland waterways and by coastal feeder barges. Yet funding for channel, lock, and levee improvements has, in fact, decreased over the past 20 years.

This study concludes that the U.S. port and intermodal freight transportation system is now being operated in many areas at the limits of its maximum capacity. Should any component of the system break down, more than one-fourth of the national economy will be crippled. Such breakdowns have partially occurred in the past, and will most certainly occur in the future. The paradox is that the United States has significant reserve capacity in its freight transportation system; it is simply located in the wrong place to relieve the most critical choke points. The U.S. lacks a national program for freight transportation planning and development to focus critical scarce resources on the choke points at key gateways and corridors.

Further, this study concludes that there is no coordinated approach to an "intermodal system" as such. Rather, transportation planning takes place at the Metropolitan Planning Organization (MPO) level with little regard for national transportation priorities. Moreover, this intermodal system is

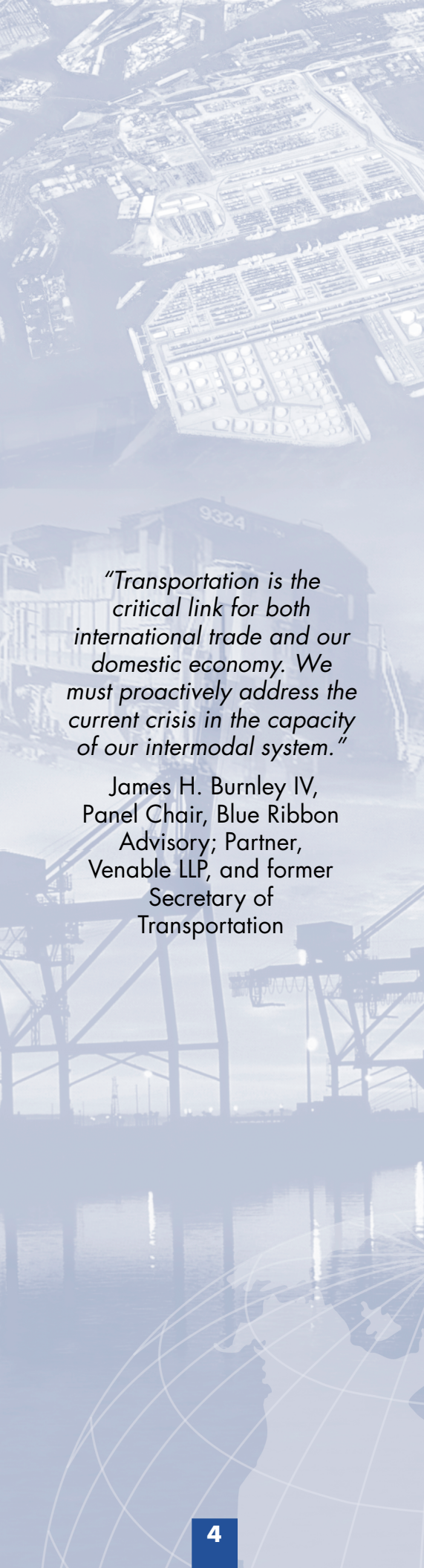
merely an aggregation of multiple, private and public modes, each of which is stovepiped within its own individual areas of activity. That is, each mode has a vertically integrated information system; vertically integrated planning, development, and management programs; and vertically integrated funding mechanisms with minimal "cross-talk" between modes.

Therefore, there must be a comprehensive, national effort with a joint public/private partnership to unify the modes into a coherent intermodal freight transportation system. This study recommends that the actions described below be initiated as soon as possible.

### **National Freight Policy**

The United States must develop a National Freight Policy that will institutionalize and coordinate a separate freight program within the U.S. Department of Transportation (USDOT) to plan and promote a national intermodal system that relies on timely freight data and effective information technology (IT). To accomplish this, a Federal Freight Advisory Committee must be created to produce specific, targeted results in areas where infrastructure shortfalls have been identified:

- A clearly defined freight program within the USDOT
- A national intermodal planning and development initiative



*"Transportation is the critical link for both international trade and our domestic economy. We must proactively address the current crisis in the capacity of our intermodal system."*

James H. Burnley IV,  
Panel Chair, Blue Ribbon  
Advisory; Partner,  
Venable LLP, and former  
Secretary of  
Transportation

- A coherent environmental regulatory process
- Freight data and IT
- Labor integrated into national freight policy

### Financing Options

New financing options for intermodal freight infrastructure enhancements must be developed to ameliorate existing and future impediments to an effective intermodal freight system. This study recognizes that its mission is not only to identify one source of funding but also describe the need for funding, and to present funding options. Among these options are expanded eligibility for existing TEA-21 programs, a National Freight Transportation Bank, or a new series of Transportation Bonds.

U.S. industrial strength has been based on rapid, cheap, but dependable freight transport. However, it is an overloaded system, burdened by parochial planning approaches, and outdated labor and productivity standards that are not in step with the dictates of global trading patterns. The facts presented in this study will demonstrate a potential scenario of catastrophic breakdown in the national cargo delivery system. Although some of these findings are troubling, this study documents economic risks to the nation that have been overlooked far too long. It is imperative that these risks be eliminated before the nation's economic stability and its security are jeopardized.